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Patent Attorney's Docket No. <u>018414-082</u>

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	Attention: Drafting Branch	#8
William K. ZURAVLEFF et al)	Allowed: November 5, 1996	4
Application No.: 08/437,975)	Batch: G11	RECEIVED
Filed: May 10, 1995)	Group Art Unit: 2318	Publishing Division JAN 2 4 1997
For: A CONTROLLER FOR A SYNCHRON- OUS DRAM OUT OF ORDER (AS AMENDED))	Examiner: F. Asta	03

SUBMISSION OF FORMAL DRAWINGS

Box Issue Fee Assistant Commissioner for Patents Washington, D.C. 20231

ATTN: OFFICIAL DRAFTSMAN

Sir:

Enclosed please find six (6) sheets of formal drawings for review by the Patent and Trademark Office in connection with the Notice of Allowance mailed November 5, 1996. Should the enclosed drawings require changes, it is respectfully requested that the Patent and Trademark Office notify the undersigned attorney of same.

By:

Respectfully submitted,

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Date: January 24, 1997



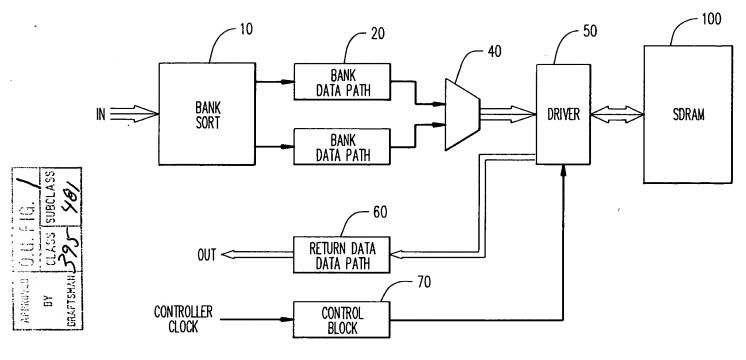


FIG. 1

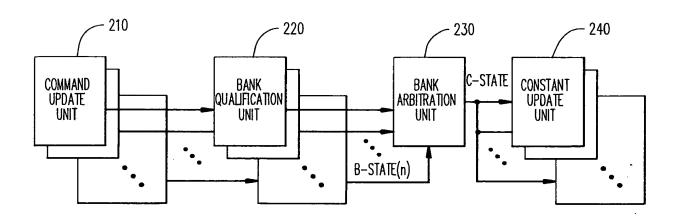
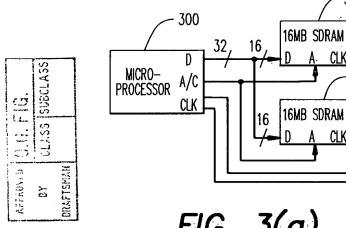


FIG. 2



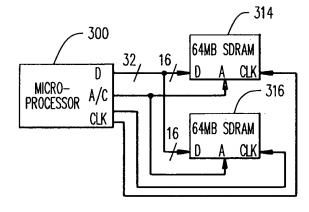


FIG. 3(a)

310

312

FIG. 3(b)

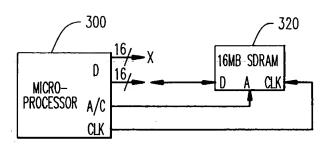


FIG. 3(c)

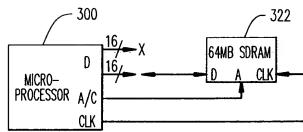
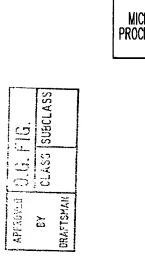


FIG. 3(d)



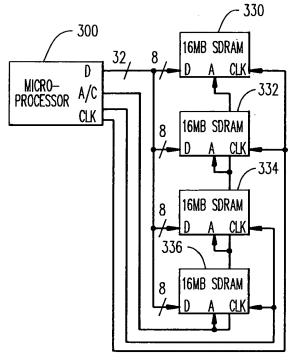


FIG. 3(e)

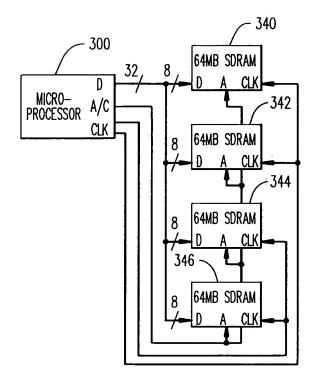


FIG. 3(f)

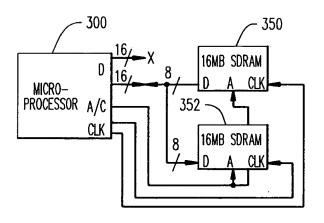


FIG. 3(g)

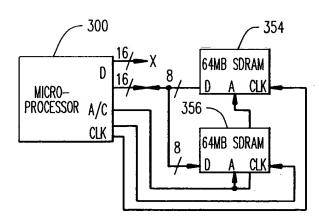


FIG. 3(h)

2000000 g XXXXXXX XXXXXXX 00100 <u>×</u> × LOADS 000 ≋ 1500000 8 STORES 1111 NOP NOP DRAFTSMAH Mode register set e d Q PON NOP) - PRECHARGE BOTH BANKS -KEFRESH-> NOP | NOP POWER UP S S S 90N 7777777 XXXXXXX XXXXXXX 0000000 XXXX g ≋ ≋ COMMAND ADDRESS: SAMPLE ACTIVE ROW 1 CONTROLLER RETURN BUS DATA DRIVE ACTIVE ROW 0 READY OUTPUT TO PAD READ WINDOW WORD ADDRESS RESTART GO CONTROLLER INPUT BUS CONTROLLER CLOCK RESET CONTROLLER RETURN BUS REQUEST CONTROLLER RETURN BUS GRANT SDRAM CLOCK

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FIG. 4(a)

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BY CLASS SUBCLASS

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<u>S</u> HFFF) ≋ 10000000 8000 PRE 00100 系而 080 (M) 00000000 9 O 111 80000 8000) WRITE MY (00000000) 8 080 0000 **WXXXXXXX** WRITE (0004 M) 100000000 0000 \1FFF WRITE YNOP 00000000 00000000 0000 do N (1FF XXXXXXX IIII 8 000 (ACT ¥ 00000000 XXXXXXX ≋ FIG. 4(b) COMMAND ADDRESS SAMPLE CONTROLLER CLOCK READY CONTROLLER RETURN BUS DATA ACTIVE ROW 0 RESET RESTART 60 DRIVE ACTIVE ROW 1 CONTROLLER INPUT BUS CONTROLLER RETURN BUS GRANT SDRAM CLOCK OUTPUT TO PAD READ WINDOW CONTROLLER RETURN BUS REQUEST STORES

PRE NOP 0000 | 1FFF | 0004 | 1FFF | 0008 | 0800 | 0004 | 1FFF | 0800 | 0004 | 1FFF | 0800 | 1FFF ≋ PRE NOP 00000000 CLASS SUBCLASS ≋ APPLICATE | 13.11. F.1G. <u>8</u> 1850000 NOP N DRAFTSMAN 2 <u>بر</u> ني 00000000 000 (ACT) (NOP (RD **₩**XXXXXXx 5/XXXXXX 00000000 (NOP (RD **₩** XXXXXXX 8 (ACT (NOP 0000 TEFF 8 **₩** XXXXXXX 00000000 00000000 7777777 g ≋ SAMPLE COMMAND ADDRESS READY CONTROLLER RETURN BUS DATA DRIVE ACTIVE ROW 0 CONTROLLER INPUT BUS OUTPUT TO PAD ACTIVE ROW 1 CONTROLLER CLOCK RESET RESTART GO CONTROLLER RETURN BUS GRANT SDRAM CLOCK READ WINDOW CONTROLLER RETURN BUS REQUEST

00100 00004 80000 00004 0000 <u>|</u> ₩ XXXX FIG. 4(c) WORD ADDRESS